

Cobra Anatomy & Physiology
Answer Key 2018

- 1) Sublingual, Submandibular, and Parotid salivary glands
- 2) Carbohydrates
- 3) Glottis (opening to the trachea)
- 4) 8 incisors, 4 cuspids, 8 bicuspid, and 12 molars
- 5) Uvula
- 6) Pepsinogen
- 7) Gastric Rugae
- 8) Chyme
- 9) Diaphragm
- 10) Duodenum
- 11) Duodenum; ileum
- 12) Villi
- 13) 1-2, 7-8
- 14) Peristalsis
- 15) Parotid gland; Masseter
- 16) Gustatory
- 17) Cecum
- 18) Pylorus
- 19) Pancreatic duct and common bile duct
- 20) Liver; Gallbladder
- 21) Bile; lipase
- 22) Cystic duct
- 23) Cholecystokinin
- 24) Secretin
- 25) Cholecystokinin
- 26) Water
- 27) Esophageal
- 28) Diarrhea
- 29) Lactase
- 30) Fat
- 31) B
- 32) A
- 33) C
- 34) E
- 35) A
- 36) B
- 37) C
- 38) D

- 39) D
- 40) A
- 41) D
- 42) D
- 43) C
- 44) A
- 45) D
- 46) B
- 47) D
- 48) B
- 49) B
- 50) C
- 51) C
- 52) D
- 53) C
- 54) C
- 55) D
- 56) A
- 57) D
- 58) A

59) When a pathogen invades the body, it will trigger an immune response due to unique molecules called antigens. These will lead to the formation of very specific, matching antibodies in response to these molecules.

60) Three cells that perform phagocytosis are macrophages, dendritic cells [1 pt], and neutrophils. (eosinophils, B cells also acceptable, although still being debated)

61) Three parts/members of the immune system that will contribute to inflammation include basophils [1 pt], mast cells [1 pt], and macrophages [1 pt]. (neutrophils, complement activation also acceptable)

62) The spleen is similar in structure to lymph nodes [1 pt], but will filter blood [1 pt] instead of lymph.

State whether each of the following is true (T) or false (F).

63) T [1 pt] Lymph comes from fluid leaked out of blood vessels.

64) F [1 pt] Cells are the only features that make up our internal immune system.

- 65) ___F___[1 pt]___An APC (antigen presenting cell) will directly interact with mast cells
- 66) ___T___[1 pt]___When lymph nodes enlarge, it is because cells in the node are dividing in response to an antigenic stimulus.
- 67) ___T___[1 pt]___Dendritic cells link innate and adaptive immunity.
- 68) ___F___[1 pt]___Autoimmunity is when your immune system recognizes your tissues and does not react.
- 69) ___F___[1 pt]___Secondary lymphoid organs allow interactions that will trigger the start of an innate immune response.
- 70) ___F___[1 pt]___The covering of the eyes is the most frequent portal of entry for pathogens.
- 71) ___F___[1 pt]___Another word for antigen is immunoglobulin.

State which of the three lines of defense (1st, 2nd, or 3rd) each of the following is a part of.

- 72) ___1___[1 pt]___Skin
- 73) ___3___[1 pt]___Plasma/B cell
- 74) ___2___[1 pt]___Neutrophil
- 75) ___1___[1 pt]___Lysozyme
- 76) ___2___[1 pt]___Inflammation
- 77) ___3___[1 pt]___Antibodies
- 78) ___3___[1 pt]___T helper cells
- 79) ___1___[1 pt]___Normal microbiota

TIE BREAKER:

- 80) During forceful inspiration, the diaphragm _____contracts_____ and the external intercostals _____elevates_____ the rib cage, increasing the volume of the thoracic cavity.
- .

81) 1) Innate immunity...

A) is based on recognition of antigens that are specific to different pathogens.

B) is found only in vertebrate animals.

C) depends on a newly infected animal's previous exposure to the same pathogen.

D) is activated immediately upon infection.

E) utilizes highly specific antigen receptors on B cells.

82) A systemic inflammatory response that is often life-threatening is

A) aches and dull pain.

B) increased white blood cell count.

C) mild fever.

D) septic shock.

E) high blood pressure.